

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/02/14469

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B25G1/01

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B25G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 530 989 A (REMMERT) 2 July 1996 (1996-07-02) column 2, line 8-13 column 2, line 22-26 column 3, line 26-34 column 4, line 55-62; figures	1-7
Y		8
A		13-19
X	US 5 588 343 A (RUST) 31 December 1996 (1996-12-31) column 3, line 19-34; figures	1-4, 9-12
A		5, 13-16, 21, 24

	---/---	

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

G document member of the same patent family

Date of the actual completion of the international search

27 March 2003

Date of mailing of the international search report

04/04/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Matzdorf, U

INTERNATIONAL SEARCH REPORT

Int. Application No
PCT/02/14469

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 781 963 A (MARU) 21 July 1998 (1998-07-21) column 3, line 8-30 column 3, line 63 -column 4, line 2; figures -----	1,2,5,7, 13,14, 17,19, 20,22
X	WO 00 09296 A (THE STANLEY WORKS) 24 February 2000 (2000-02-24) page 5, line 6-15 page 6, line 3-24 page 7, line 14-18; figures -----	1
A		6,9-12, 18
X	US 4 334 563 A (EPEL) 15 June 1982 (1982-06-15) abstract column 2, line 56-63 column 3, line 11-18; figures -----	1-5, 13-16, 19,21,24
Y		8
X	US 6 311 369 B1 (RYU) 6 November 2001 (2001-11-06) column 4, line 65 -column 5, line 2 column 5, line 17,18 column 5, line 42-53; figures -----	1-4, 13-16, 21,24
A	US 5 421 931 A (CARMEN) 6 June 1995 (1995-06-06) abstract; figures -----	9,21,22

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/02/14469

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5530989	A	02-07-1996	CA 2206424 A1 DE 69505422 D1 DE 69505422 T2 EP 0799114 A1 ES 2125059 T3 JP 10511048 T WO 9619325 A1	27-06-1996 19-11-1998 04-03-1999 08-10-1997 16-02-1999 27-10-1998 27-06-1996
US 5588343	A	31-12-1996	NONE	
US 5781963	A	21-07-1998	CA 2232681 A1 EP 0854772 A1 WO 9712728 A1	10-04-1997 29-07-1998 10-04-1997
WO 0009296	A	24-02-2000	AU 5396599 A EP 1105255 A1 TW 466160 B WO 0009296 A1 US 6202511 B1	06-03-2000 13-06-2001 01-12-2001 24-02-2000 20-03-2001
US 4334563	A	15-06-1982	AU 7379981 A BR 8108714 A CA 1171763 A1 EP 0056050 A1 IT 1171375 B JP 57501226 T WO 8200265 A1	16-02-1982 01-06-1982 31-07-1984 21-07-1982 10-06-1987 15-07-1982 04-02-1982
US 6311369	B1	06-11-2001	AU 7062800 A EP 1212174 A1 WO 0114106 A1	19-03-2001 12-06-2002 01-03-2001
US 5421931	A	06-06-1995	AU 659963 B2 AU 4756893 A US 5493758 A US 5632837 A AU 2040592 A DE 69208185 D1 DE 69208185 T2 EP 0531667 A1	01-06-1995 09-12-1993 27-02-1996 27-05-1997 21-01-1993 21-03-1996 04-07-1996 17-03-1993